

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program



Program Area:	Monitoring	Directive Number:	SM-29
Date:	August 21, 1998	Supersedes:	SM-27
Subject:	Upgrade of SMPCheck Software to Version 2.6		

This new version of the SMPCheck software contains modifications made in response to feedback from the RCOCs. More specifically, the following modifications were made in this program version:

- < Fixed error in procedure used to compute total daily rainfall after daylight savings time adjustments are made (see SMPPR NA-21).

Note: An error in the precision of rainfall data stored in the IMS SMP module was recently discovered; level of precision was not adequate. To correct this problem, an IMS directive will be issued by FHWA, under separate cover, requesting that the RCOCs re-upload all SMP rainfall data processed to date. The upload file created by SMPCheck is correct, hence data re-processing is not required except to correct those files affected by error associated with correction for daylight savings time noted above. (An IMS level E QC check compares the sum of hourly rainfall data to total daily rainfall and can also be used to identify files requiring reprocessing.)

- < Added utility that allows user to delete daily air temperature statistics without editing hourly air temperature data (see SMPPR W-17). This function is activated in the displays created when the view selected data or view edited data options are chosen for daily MRC temperature statistics. The edit procedure is the same as for other MRC temperature data, as documented in the SMPCheck v2.5 Users Guide. If any of the daily air temperature statistics are deleted, the program will recalculate all daily statistics based on the hourly data, provided that more than 20 hours of hourly data are available. These computations are performed when the user exits the edit screen. The user may then review the newly calculated daily air temperature statistics by selecting the appropriate view edited data option.
- < Fixed minor glitch in the display of daily temperature statistics for all 18 MRC sensors

that occurs when onsite data files are combined that cover two consecutive years and have missing data in either December or January. The program would display a “zero” day occurring between December 31 and January 1. This problem was caused by improper handling of leap years (365 vs 366 days) in the display routine. Since this bug only affected the display and did not create errors in the upload file, no reprocessing is necessary.

< In response to SMPPR W-16, enhanced SMPCheck QC report by including abbreviated informational messages when one of the following conditions occurs:

- Total daily rainfall value removed.
- Daily air temperature data exists for day that has less than 20 hours of hourly temperature data.
- Daily air temperature data removed.
- Daily MRC temperature data for sensors 1 to 5 are based on less than 20 hours of hourly data.
- Daily MRC temperature data for sensors 1 to 5 removed.
- Daily MRC temperature data for sensors 6 to 18 removed.

The above modifications require minor changes to the documentation; however, a revised version of the Users Guide will not be provided at this time. Please continue to use the Users Guide provided with the SMPCheck v2.5 software.

SMPCheck v2.6 should be installed on computers being used to process SMP data. Installation consists of copying the file INSTALL.EXE off the distribution diskette and into the SMPCheck directory. Once done, run the INSTALL.EXE program and answer “yes” to overwrite existing program files. If this procedure is followed, the SMPCheck program should be able to read and process all data previously entered and processed with v2.5* or earlier versions of the SMPCheck program.

Once installed, RCOC personnel shall reprocess those files containing rainfall data failing the IMS level E QC check comparing the sum of hourly rainfall data to total daily rainfall. To correct this problem, the user must first load the EDT file in question and then use the ‘View Edited File’ function to select the EDT file and view the data. No editing is required as the program will automatically re-compute the daily rainfall total once the user exits the view data option. However, routine IMS checks shall be performed on those data.

If there are any problems, please submit a SMP problem report (SMPPR) form in accordance with LTPP Monitoring Directive SM-6.

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